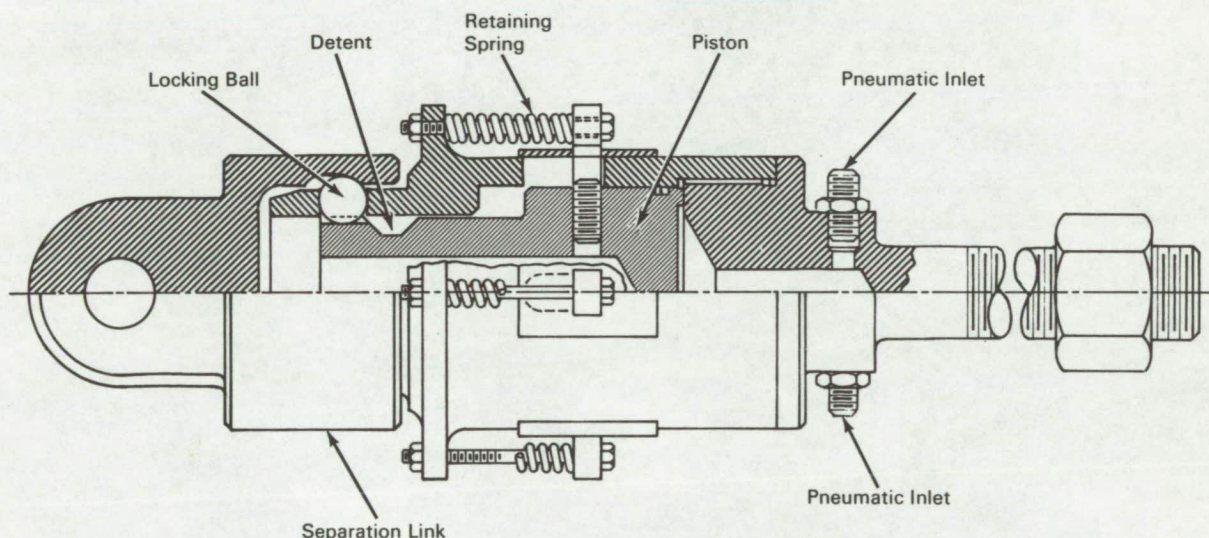


NASA TECH BRIEF



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Pneumatic Separator Gives Quick Release to Heavy Loads



The problem:

To quickly release by separation or other means, restraining devices securing heavy loads.

The solution:

A device that quickly releases the restraining medium when pneumatic pressure is applied.

How it's done:

When pneumatic pressure is applied, the piston is driven forward, overcoming the tension of the retaining springs. This permits the locking balls to drop into the detents and thus free the separation link.

Notes:

1. A prototype device has a load handling capability to 75,000 pounds. Rescaling would give the device

a wide range of applications for retaining and quickly releasing loads.

2. With minor modifications this separator could be used as a coupling device.
3. Inquiries concerning this innovation may be directed to:

Technology Utilization Officer
Kennedy Space Center
Kennedy Space Center, Florida 32899
Reference: B66-10294

Patent status:

No patent action is contemplated by NASA.

Source: D. C. Buchanan, E. J. Davis,
and J. D. Phillips
(KSC-66-10)
Category 05